ADAPTIVE TRANSITION DENSITY DATA TRIGGERED PLL
(PHASE LOCKED LOOP)

ABSTRACT OF THE DISCLOSURE

Adaptive transition density data triggered PLL (Phase Locked Loop). A novel solution is presented within a data triggered PLL whereby the missing data edge transitions may be detected and used to modify a phase difference between a data signal and a feedback signal and/or a current of a CP (Charge Pump) thereby maintaining a substantially constant loop bandwidth of the PLL for varying data edge transition rates. In one embodiment, an estimation of a substantially linear shift in PLL phase relative to the data phase is employed in the absence of data edge transitions. Alternatively, other means of implementing the shifts may be employed (e.g., non-linear) as desired in particular applications. This solution provides for a data triggered PLL that is practically impervious to variations in data edge transition density.